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EDUCATION, SCIENCE, TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGIES, COOPERATION AND CAPACITY-BUILDING

Draft decision submitted by the Chairman

Transfer of environmentally sound technology, cooperation and capacity-building

1. The Commission on Sustainable Development reviewed with appreciation the report of the Inter-sessional Ad Hoc Open-Ended Working Group on Technology Transfer and Cooperation (E/CN.17/1994/11) and took note of the background paper containing the Task Manager's report on the transfer of environmentally sound technology, cooperation and capacity-building, as well as section III of the report of the Secretary-General containing an overview of cross-sectoral issues (E/CN.17/1994/2). The Commission also noted the part of the report of the High-level Advisory Board (E/CN.17/1994/13) relating to new approaches to environmentally sound technology cooperation.

2. The Commission noted with appreciation the valuable initiatives undertaken by various members of the Commission during the inter-sessional period as a contribution to the work of the Commission in the area of transfer of environmentally sound technology, cooperation and capacity-building, as discussed in chapter 34 and other chapters of Agenda 21.

3. The Commission recognized that developing countries face severe constraints in their efforts to promote and engage in technology transfer and cooperation due to the lack of adequate financial resources and limited human, managerial and institutional capacities. In this regard, the Commission welcomed the emphasis given by the Inter-sessional Ad Hoc Open-ended Working Group on Technology Transfer and Cooperation to three key areas requiring priority attention, namely: (1) access to and dissemination of reliable information on environmentally sound technologies, (2) institutional development and capacity-building and (3) financial and partnership arrangements.

4. The Commission noted that many of the proposals for action related to the transfer of environmentally sound technology and cooperation are based on practical experiences gained in some sectoral areas, and that many of these experiences can be applied to other sectors as well.

5. The Commission stressed, in the context of chapter 34 of Agenda 21, the need for Governments of developed and developing countries and countries with economies in transition to take, with the support of international organizations and institutions, specific action, through long-term cooperation and partnership arrangements, inter alia, to (a) promote, facilitate and finance, as appropriate, access to and the transfer of environmentally sound technologies and corresponding know-how, in particular to developing countries, on favourable terms, including on concessional and preferential terms, as mutually agreed, taking into account the need to protect intellectual property rights, as well as the special needs of developing countries, for the implementation of Agenda 21; (b) promote long-term technological cooperation and partnership between holders of environmentally sound technologies and potential users; and (c) build the endogenous capacities of those countries required to develop, assess, encourage and utilize such technologies through, inter alia, research and development, education and training.

6. The Commission reaffirmed the crucial importance of strengthening the capacities, in particular of developing countries to assess, develop, apply and manage environmentally sound technologies tailored to the countries' own needs and priorities and stressed the need to focus efforts on capacity-building and institutional development.

7. The Commission recognized that the expertise required for technology transfer and cooperation is being developed in many countries. Therefore, Governments and enterprises are urged to look throughout the world for the best ideas and creative solutions to meet their needs and solve their problems. The transfer of unproved or environmentally detrimental technologies could thereby be avoided.

8. The Commission reiterated the importance of public and private enterprises in technological innovation and as an important conduit through which technology is developed, transferred, used and disseminated. In this regard, the Commission recognized that technology partnership arrangements at the enterprise level are a promising mechanism to facilitate the access to information on environmentally sound technologies, to support the development, transfer, use and dissemination of these technologies and related know-how. They also strengthen the operational, administrative and maintenance skills of the users, and stimulate best practice methods for improving environmental performance at the enterprise level, including through promoting the pollution prevention approach in the production and use of goods and services. Companies must continue to adapt and develop the technology during the period of cooperation. In this context, the concepts of "Build-operate-transfer" (BOT) 1/

1/ "Build-operate-transfer" arrangements can be used by private companies to build a project, operate it long enough to pay back its debts and to achieve a return on equity, and then transfer it to the host Government.

arrangements, regional technomarts and technofairs, 2/ were considered promising approaches to technology transfer which need further examination.

9. The Commission noted the efforts of some industry associations to organize conferences in selected countries in different regions for industry and trade associations which would focus on environmental management, monitoring and reporting, and to undertake research projects to collect and analyse case studies of successful and unsuccessful technology transfer and cooperation programmes.

10. The Commission also stressed the crucial role that Governments of both developed and developing countries have to play in creating favourable conditions for the public sector and in encouraging the private sector to develop and transfer environmentally sound technologies, and to build the capacities in developing countries to effectively use and manage those technologies. In this regard, international cooperation is highly important. The application of incentives, such as reducing trade barriers, encouraging competition, opening up markets to foreign collaboration, reducing corporate taxes and providing fiscal incentives to enterprises that implement the transfer of environmentally sound technologies, as well as other market reforms and sector restructuring, are likely to have a substantial impact on improving access to capital for new technologies. The further improvement and effective implementation of an appropriate policy, legal and regulatory framework, on both the supply and the demand side, can create new possibilities for the development of environmentally sound technologies and their transfer to developing countries. This may include a mix of macroeconomic policies, economic incentives and environmental regulations. Special attention should also be given, as recommended by the Inter-sessional Ad Hoc Open-ended Working Group on Technology Transfer and Cooperation, to the involvement of small and medium-sized industries in the process of technology transfer as they are the backbone of business and industry in most developing countries. In this context, the Commission welcomed the offer by the Government of Norway, in cooperation with United Nations Conference on Trade and Development, to host a seminar on the role of small and medium-sized enterprises in technology transfer.

11. The Commission welcomed the recommendations of the Working Group concerning the need to promote efforts towards closer interaction between all actors involved in technology transfer and cooperation and networking of institutional capacities. In this context, the strengthening of existing environmental technology centres and the establishment of new ones in developing countries would be of crucial importance in promoting development, transfer and adaptation of environmentally sound technologies. They are a promising instrument that could initiate research and development on environmentally sound technologies and facilitate technological collaboration between different partners at the national and regional levels. The strengthening or establishment of such centres could also be considered for countries with economies in transition.

2/ Technomarts and technofairs are market places where technology suppliers and users meet to exchange practical information on and demonstrate applications of environmentally sound technologies.

12. The Commission felt that the Working Group identified key priority areas for the future work of the Commission and provided an important forum for the discussion of issues and the consideration of options that might have been difficult in other contexts.

13. The Commission took note of the relevant provisions on the transfer of technology contained in the Programme of Action for the Sustainable Development of Small Island Developing States, adopted by the Global Conference on the Sustainable Development of Small Island Developing States, held at Bridgetown, Barbados from 26 April to 6 May 1994, and urged that adequate support be given to priority areas in technology transfer as identified in the Programme of Action.

14. The Commission, therefore,

(a) Encourages and requests appropriate organizations of the United Nations system, such as the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the United Nations Industrial Development Organization (UNIDO) and the United Nations Conference on Trade and Development (UNCTAD), to conduct, including in collaboration with other international organizations, such as the Organisation for Economic Cooperation and Development, a survey on and assessment of the available sources of information as well as supporting systems and inventories, and their effective use, focusing on selected environmentally sound technologies. The survey and assessment should cover sources and systems of information on technologies that are in the public domain as well as those protected by patents, whether privately or publicly owned. In this regard, Governments, organizations and programmes of the United Nations system, other international organizations, private non-profit organizations, trade associations, industrial and commercial associations and enterprises, research institutes, other non-governmental organizations, as well as other relevant entities, are encouraged to provide all relevant information and any other appropriate assistance, including case studies on technology transfer, in particular through the Internet-based systems and facilities. The objective is to identify gaps and/or deficiencies in the information sources or systems surveyed, and indicate feasible approaches to correcting such problems, in order to improve the access to and efficient use of such systems. An initial report on the results of this survey and assessment should be submitted to the Commission at its third session, in 1995;

(b) Invites industry associations to provide to the Commission, and to disseminate more widely, information on efforts being made and results achieved in environmentally sound technology transfer, cooperation and capacity-building, including through foreign direct investment and various forms of technology partnerships with developing countries and countries with economies in transition;

(c) Invites Governments of developed and developing countries and countries with economies in transition and regional and intergovernmental organizations, to conduct collaboratively, with the assistance of international organizations and institutions, as appropriate, case studies on national technology needs for environmentally sound technologies, capacity-building and institutional development, and welcomes the initiatives already being undertaken

thereon, including with regard to further developing methodologies and identifying sources of funding, and to report to the Commission at its third session;

(d) Requests the Secretary-General to invite appropriate organizations of the United Nations system to examine the concrete modalities and the usefulness of innovative technology transfer mechanisms such as "one-stop shops", 3/ "environmentally sound technology rights banks" (ESTRBs) 4/ or "build-operate-transfer" (BOT) arrangements, and submit concrete recommendations to the Commission at its third session. Such an effort should take full advantage of the expertise of the High-level Advisory Board on Sustainable Development and other eminent technical experts;

(e) Invites appropriate organizations of the United Nations system to further examine, in close collaboration with other interested parties, including private sector associations, the operational modalities and concrete applications of the concept of "benchmarking"; 5/

(f) Calls upon Governments and international organizations to make available, in close collaboration with relevant financial institutions and the private sector, information on the conditions and concrete modalities for setting up and managing venture capital funds for certain types of environmentally sound technologies, and to share with the Commission the results achieved and experiences gained in the application of their conditions and modalities;

(g) Requests the Secretary-General to call upon Governments to explore, in close collaboration with appropriate organizations of the United Nations system and other intergovernmental organizations, both regional and multilateral, including financial institutions, and the private sector, the potential for joint ventures and the feasibility of providing adequate financing to pursue such joint ventures, and to report to the Commission at its third session;

(h) Invites UNCTAD, UNDP, UNIDO, UNEP, other appropriate organizations of the United Nations system, other intergovernmental organizations, both regional and multilateral, including financial institutions, to assist, in particular developing countries, in applying conditions and new modalities for the involvement of small and medium-sized enterprises in long-term international technology partnership arrangements, including in the preparation, execution and

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3/ "One-stop shops" are referral centres which could assist technology users to obtain all required information available on all aspects of national conditions related to the transfer of technology from one source.

4/ "Environmentally sound technology rights banks" are ownership arrangements which would act as a broker for acquiring patent rights to sounder technologies and make them available to countries in need of technical assistance, and in particular to developing countries on favourable terms.

5/ "Benchmarking" is an instrument for assessing, monitoring and encouraging best-practice standards at the enterprise level.

post-servicing of sustainable development projects at the local level, and to report to the Commission at its third session;

(i) Invites the relevant agencies of the United Nations system, in particular UNIDO, to undertake, within available resources, sectoral and techno-economic studies and demonstration projects on the transfer of industrial environmentally sound technologies and techniques in order to support sustainable development in the area of industry and to report to the Commission at its third session on initial results achieved by that time;

(j) Requests the Secretary-General to invite appropriate organizations of the United Nations system to examine the feasibility of establishing a consultative group on environmental technology centres bearing in mind the experience of the Consultative Group on International Agricultural Research (CGIAR);

(k) Calls upon Governments, particularly of developed countries, to promote the contribution of their universities and research centres in the transfer of available environmentally sound technologies and expertise, including through such mechanisms as university grants and workshops, and encourages international organizations to support those efforts.

15. The Commission recommends the following criteria to effectively organize its future work:

(a) As a general rule, issues related to transfer of environmentally sound technology, cooperation and capacity-building should be reported through the two Inter-sessional Ad Hoc Open-ended Working Groups;

(b) Taking stock of previous experience (lessons learned and results achieved in the relevant initiatives being undertaken during the inter-sessional period) to advance the debate and facilitate decision-making in the regular sessions of the Commission;

(c) Greater involvement of experts, the private sector and non-governmental organizations;

(d) Presenting the results to the secretariat of the Commission in time for them to be incorporated into the documentation to be submitted to the Commission. Those results should be presented to the secretariat in the form of an extremely short and comprehensive paper, focusing on two areas: (1) shortcomings and unresolved problems identified; and (2) feasible and practical recommendations for further consideration by the Commission, tailored to different actors such as Governments, international organizations and institutions, non-governmental organizations and the private sector.